

Montana Department of Natural Resources and Conservation  
Water Resources Division  
Water Rights Bureau

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

1. Applicant/Contact name and address: K & J Development, Inc.  
843 Peppergrass  
Corvallis, MT 59828
2. Type of action: Application For Beneficial Water Use Permit No. 76H 30027606
3. Water source name: Groundwater
4. Location affected by project: SESW Section 33, T7N, R20W, Ravalli County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

K & J Development, Inc. submitted an application for a beneficial water use permit to DNRC. The applicant proposes to divert 20 gpm up to 18.8 acre-feet per year from two groundwater wells for multiple domestic and lawn and garden uses. Multiple domestic water use will occur in the 29 lot Centennial Subdivision Phase 2. K & J Development acquired a water right permit for 100 gpm up to 25 acre-feet in 2004 for the first phase of the subdivision. This application seeks an additional 20 gpm and 18.8 acre-feet from the same two wells. The total appropriation from the wells will be 120 gpm up to 43.8 acre-feet for both phases of the subdivision. The two wells, each capable of supplying 60 gpm, will be manifold into one central water supply system. The place of use for phase 2 consists of a 29 lot single-family subdivision in the SESW of Section 33, T7N, R21W. The lawn and garden use will consist of sprinkler irrigation for each lot, and sprinkler irrigation for a common area, which will total 3.75 acres. The period of use for domestic is year round, and lawn and garden irrigation will occur between May 1 and September 30 annually.

The use of groundwater for this project will provide the benefit of domestic water for 29 residences and lawn and garden irrigation. Both domestic and lawn and garden irrigation uses are considered beneficial by the State of Montana. The volume of water requested is reasonable, and does not constitute a waste of water.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met

6. Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)

Montana Historical Society  
Montana Natural Heritage Program  
Bitterroot Valley Soil Survey

Cultural Resource File Search  
Species of Concern  
Soil data

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<h3><b>PHYSICAL ENVIRONMENT</b></h3>
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#### **WATER QUANTITY, QUALITY AND DISTRIBUTION**

**Water quantity** - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Not applicable. The source of supply is groundwater diverted from a well.

*Determination:* No impact.

**Water quality** - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Not applicable. The source of supply is groundwater diverted from a well.

*Determination:* No impact.

**Groundwater** - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

The subdivisions production wells were both pump tested in May, 2005, and maintained consistent yields of 102 and 105 gpm for the duration of the test. K & J Development, Inc. is applying for a flow rate of 20 gpm. Impacts to the groundwater aquifer were projected out for the entire 365-day period of appropriation. The results of the applicant's groundwater modeling indicate that after pumping continuously for 365 days the groundwater aquifer would be drawn down no greater than 0.45 feet at any location outside the applicant's property boundary. Groundwater drawdown was projected out to a level of 0.01 feet. Near the well, drawdown will be approximately 0.45 feet. Drawdown decreases the further you travel from the well, with 0.01 feet of drawdown occurring 1.3 miles away from the production wells. This amount of drawdown, by itself, is not great enough to impact other well users in the project vicinity. No sources of groundwater contamination were identified. The source of groundwater is

hydraulically connected to surface water, including the Bitterroot River. The applicant estimates an annual depletion of 10.34 acre-feet, which equals an average depletion rate of 6.4 gpm. This depletion rate will not have a measurable impact on the Bitterroot River. However, the applicant will be required to mitigate this depletion so there is no impact to surface water flowing in the Bitterroot River.

*Determination:* No impact.

**DIVERSION WORKS** - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The wells were drilled by a licensed well drilling company in accordance to state laws, rules and regulations. The Montana Department of Environmental Quality approved the well locations. The project does not involve disturbance of any stream channels and/or riparian areas. The project will not create any barriers or utilize any dams, or cause any flow modifications in adjacent surface water sources. The aquifer test performed by the applicant indicates that the drawdown resulting from pumping from the well will have no noticeable affect on neighboring wells, and will not prevent any future well construction in the area.

*Determination:* No impact.

#### **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

**Endangered and threatened species** - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern,” or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”*

The Montana Natural Heritage Program was contacted to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern”, that could be impacted by the proposed project.

The following plant and animal species within Township 07 North, Range 20 West;

Fringed Myotis and Bull Trout

These animal species are found within the same Township and Range as the proposed project. None of these species were identified as being located at the proposed project site. Information on habitat preference and forage for fringed myotis in Montana is scarce. They are known to roost in abandoned buildings, cliffs, caves, and old tree snags. They feed primarily on insects. Modification of vegetation can cause a decrease in available forage (insects). The proposed project site was previously pasture ground, which most likely provided no cover for roosting. It is not known how conversion of pasture to subdivision will affect availability forage to existing populations within Township 7 North, Range 20 West.

Pump test data indicates that the proposed use of groundwater will not cause a measurable effect in the amount of surface water flowing in Willow Creek or the Bitterroot River. Therefore Bull Trout should not be impacted.

*Determination:* No impact.

**Wetlands** - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

The project does not involve any wetlands.

*Determination:* No impact.

**Ponds** - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

The project does not involve any ponds.

*Determination:* No impact.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

According to the Soil Survey for the Bitterroot Valley Area, the soils at the project site consist of Grantsdale loam, Dominic sandy loam and Hamilton-Corvallis sandy loam. None of these soils are heavy in salts that could cause saline seep. Application of water to soil will occur during irrigation of the 3.75 acres of lawn and garden irrigation within the 18-lot subdivision. This irrigation will be done using sprinklers, and the amount of water applied will not cause degradation of soil quality or stability.

The actual construction of the subdivision may alter the soil on the subject property. However, the subdivision was designed by a Professional Engineer, who will be responsible for on site construction and engineering.

*Determination:* No impact.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Existing vegetative cover most likely will be removed at the site during construction of the subdivision. The existing vegetative cover consisted of pasture grasses. The Montana Natural Heritage Program did not identify any plant species of special concern at or near the proposed subdivision site. Upon completion of the project the vegetative cover will consist of grass and

landscaping. The project is located entirely on private property, and the applicants will be responsible for controlling noxious weeds.

*Determination:* No impact.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Adverse air quality impacts from increased air pollutants are not expected as a result of this project. The water will be diverted using submersed electric pumps. No air pollutants were identified as resulting from the applicant's proposed use of groundwater for domestic and lawn and garden purposes. There most likely will be dust and noise at the site during construction, however, this will only occur during construction, and therefore, will be limited to a one time occurrence.

*Determination:* No impact.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

The Montana Historical Society indicates no historical or archaeological sites are inventoried in the area. A cultural resource inventory was recommended by MHS, however, since the property is privately owned, it is up to the landowner to report any cultural resources encountered during construction.

*Determination:* No impact.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

All impacts to land, water, and energy have been identified and no further impacts are anticipated.

*Determination:* No impact.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is located in an area with no locally adopted environmental plans.

*Determination:* No impact.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter or impair access to the present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities in the valley.

*Determination:* No impact.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

The project does not pose a significant risk to the human health

*Determination:* No impact.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*

Yes \_\_\_ No **XX** *If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination:* No impact.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

- (a) Cultural uniqueness and diversity? None identified.
- (b) Local and state tax base and tax revenues? None identified.
- (c) Existing land uses? None identified.
- (d) Quantity and distribution of employment? None identified.
- (e) Distribution and density of population and housing? None identified.
- (f) Demands for government services? None identified.
- (g) Industrial and commercial activity? None identified.
- (h) Utilities? None identified.
- (i) Transportation? None identified.
- (j) Safety? None identified.

(k) Other appropriate social and economic circumstances? None identified.

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts None identified.

Cumulative Impacts None identified.

**3. *Describe any mitigation/stipulation measures:***

No reasonable alternatives were identified in the EA.

**4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

**PART III. Conclusion**

**1. *Preferred Alternative*** None identified.

**2 *Comments and Responses***

**3. *Finding:***

Yes \_\_\_ No **XX** Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

AN EA IS THE APPROPRIATE LEVEL OF ANALYSIS FOR THE PROPOSED ACTION BECAUSE NO SIGNIFICANT IMPACTS WERE IDENTIFIED.

*Name of person(s) responsible for preparation of EA:*

*Name:* Jim Nave

*Title:* Water Resource Specialist

*Date:* July 2, 2007